

REMARKS/ARGUMENTS

Claims 1-12 are currently pending in the present patent application, with claims 13-23 having been withdrawn in the Office Action. Claims 1-5 and 12 have been amended. In light of the following, all of the claims are now in condition for allowance. If after considering this response the Examiner believes that not all of the claims are allowable, the Examiner is requested to schedule a telephone conference with the Applicant's attorney to further the prosecution of this application.

Objection to the drawings

New Fig. 5 shows the realization of the transformer in two conductive layers. Fig. 5 does not enter any new matter as it can be drawn directly from paragraphs 38 and 39 of the present application.

Rejection of claims 1-6 and 9-12 under 35 U.S.C. § 112, second paragraph

Claims 1-5 and 12 have been amended to overcome these rejections.

Rejection of claims 1 and 6-10 under 35 U.S.C. § 103(a) as being unpatentable over AAPA in view of Ross (US 3,836,852)

Claim 1

Claim 1, as amended, recites a mode-switching transformer comprising a first line in common mode and a second line in differential mode, wherein the common mode line is connected in series with a capacitor to lower a central frequency of a bandwidth of the transformer.

For example, referring, e.g., to FIG. 3 and paragraphs 26-30 of the present application, a mode-switching transformer 10 comprises a first line (sections 5' and 6') in common mode and a second line (sections 7' and 8' and junction point 9) in differential mode, wherein the common mode line is connected in series with a capacitor C. Because the capacitor C lowers the central frequency of the bandwidth of

the transformer, the sections 5', 6', 7', 8' may be sized for higher operating frequencies. As a result, the sections 5', 6', 7', 8' may be shorter in length, and thus, the size of the transformer and the insertion losses may be reduced.

Ross, on the other hand, does not disclose a mode-switching transformer comprising a first line in common mode and a second line in differential mode, wherein the common mode line is connected in series with a capacitor to lower a central frequency of a bandwidth of the transformer. In fact, Ross does not even disclose a transformer having common mode and differential mode winding structures. By definition, a differential mode winding structure requires two terminals and one intermediate reference terminal to provide respective positive and negative voltages with respect to this reference. In the present application, the differential mode winding structure includes two terminals 2, 3 and one reference terminal 9. However, no such structure is disclosed in Ross. Furthermore, there is no suggestion in Ross of taking benefit of the presence of a capacitor to lower the central frequency of the bandwidth of the transformer. Therefore, because the teachings of Ross do not include a transformer having a differential mode winding structure or a capacitor to lower the central frequency of the transformer, the combination of the Applicant's admitted prior art (AAPA) and Ross does not satisfy the limitations of amended claim 1.

Claim 7

Claim 7 is patentable for reasons similar to those recited above in support of the patentability of claim 1.

Claims 6 and 8-10

Claims 6 and 8-10 are patentable by virtue of their respective dependencies from independent claims 1 and 7.

Rejection of claims 3-5 and 11-12 under 35 U.S.C. § 103(a) as being unpatentable over AAPA in view of Ross, and further in view of Waffenschmidt (US 6,529,363)

Claims 3-5 and 11-12 are patentable by virtue of their respective dependencies from independent claims 1 and 7.

CONCLUSION

In view of the foregoing, claims 1-12 are in condition for allowance, and that action is respectfully requested.

In the event additional fees are due as a result of this amendment, payment for those fees has been enclosed in the form of a check. Should further payment be required to cover such fees you are hereby authorized to charge such payment to Deposit Account No. 07-1897.

If, after considering this response, the Examiner does not agree that all of the claims are allowable, then it is respectfully requested that the Examiner contact the Applicant's attorney at (425) 455-5575.

Respectfully submitted,

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AMENDMENTS TO THE DRAWINGS

The attached new sheet of drawings includes new Fig. 5.